

CLAIMS

1. A game machine, comprising:

movement instructing unit for instructing the movement of a player character in a three-dimensional virtual space;

space setting unit for setting the shapes of said player character and an object existing around the player character, and their arrangement in said virtual space;

image generating unit for generating an image in said virtual space as looked from a virtual visual point position;

timing decision unit for deciding the timing at which said player character and said object satisfy relatively a predetermined relation for at least one of the shape and the arrangement in said virtual space;

a timer for measuring a fixed time after said timing decision unit decides that said player character and said object satisfy the predetermined relation; and

visual point position setting unit for shifting said visual point position along with the movement of said player character so that said player character may be contained in a visual field range, and changing said visual point position in a predetermined range almost centered at said player character, when the elapse of said fixed time is detected by said timer.

2. The game machine according to claim 1, wherein said timing decision unit decides the timing at which said player character is intercepted in the visual field by said object, as looked from said visual point position in a direction toward said player

character, on the basis of the shapes of said player character and said object and their arrangement in said virtual space.

3. The game machine according to claim 1, wherein said timing decision unit decides the timing at which said object is contained in a predetermined range around said player character.

4. The game machine according to claim 3, wherein said visual point position is set above the height of said player character, and said timing decision unit decides the timing for said object above the height of said player character.

5. The game machine according to claim 1, wherein said visual point position setting unit changes said visual point position by rotating said visual point position by a predetermined angle around a rotational center of said player character position.

6. The game machine according to claim 5, wherein said image generating unit generates said image continuously while said visual point position is being rotated by said visual point position setting unit.

7. The game machine according to claim 5, wherein said visual point position setting unit continues an operation of rotating said visual point position, until said player character is kept from being intercepted by said object as looked from said visual point position.

9. A game machine, comprising:

space setting unit for setting the shapes of said player character and an object existing around the player character, and their arrangement in said virtual space;

timing decision unit for deciding the timing at which said player character and said object satisfy relatively a predetermined relation for at least one of the shape and the arrangement in said virtual space;

visual point position setting unit for shifting said visual point position along with the movement of said player character so that said player character may be contained in a visual field range; and

transmission processing unit for performing a transmission
process for making transparent said object placed between said

player character and said visual point position, when the elapse of the fixed time is detected by said timer.

10. The game machine according to claim 9, wherein said timing decision unit decides the timing at which said player character is intercepted in the visual field by said object, as looked from said visual point position in a direction toward said player character, on the basis of the shapes of said player character and said object and their arrangement in said virtual space.

11. The game machine according to claim 9, wherein said timing decision unit decides the timing at which said object is contained in a predetermined range around said player character.

12. The game machine according to claim 11, wherein said visual point position is set above the height of said player character, and said timing decision unit decides the timing for said object above the height of said player character.

13. The game machine according to claim 9, further comprising return instructing unit for making a return instruction of returning the changed transparent degree to an original state, when the transparent degree of said object is changed, wherein said visual point position setting unit returns said changed transparent degree to the original state, when the return instruction is made by said return instructing unit.

14. A game machine, comprising:

movement instructing unit for instructing the movement of a player character in a three-dimensional virtual space;

space setting unit for setting the shapes of said player character and an object existing around the player character, and their arrangement in said virtual space;

image generating unit for generating an image in said virtual space as seen from a virtual visual point position;

change instructing unit for instructing the change of said visual point position; and

visual point position setting unit for shifting said visual point position set in said virtual space, along with the movement of said player character, so that said player character may be contained in a visual field range, and changing said visual point position in a predetermined range almost centered at said player character, when a change instruction is made by said change instructing unit.

15. The game machine according to claim 14, wherein said visual point position setting unit changes said visual point position by rotating said visual point position by a predetermined angle around a rotational center of said player character position.

16. The game machine according to claim 15, wherein said image generating unit generates said image continuously while said visual point position is being rotated by said visual point position setting unit.

17. The game machine according to claim 15, wherein said visual point position setting unit continues an operation of rotating

said visual point position, until said player character is kept from being intercepted by said object as looked from said visual point position.

18. The game machine according to claim 14, further comprising return instructing unit for making a return instruction of returning the changed visual point position to an original state, when said visual point position is changed, wherein said visual point position setting unit returns said changed visual point position to the original state, when the return instruction is made by said return instructing unit.

19. A game machine, comprising:

movement instructing unit for instructing the movement of a player character in a three-dimensional virtual space;

space setting unit for setting the shapes of said player character and an object existing around the player character, and their arrangement in said virtual space;

image generating unit for generating an image in said virtual space as seen from a virtual visual point position;

transmission instructing unit for instructing the transmission of said object;

visual point position setting unit for shifting said visual point position, along with the movement of said player character, so that said player character may be contained in a visual field range; and

transmission processing unit for performing a transmission process for making transparent said object placed between said player character and said visual point position, when a

transmission instruction is made by said transmission instructing unit.

20. The game machine according to claim 19, further comprising return instructing unit for making a return instruction of returning the changed transparent degree to an original state, when the transparent degree of said object is changed, wherein said visual point position setting unit returns said changed transparent degree to the original state, when the return instruction is made by said return instructing unit.

21. A game machine, comprising:

movement instructing unit for instructing the movement of a player character in a three-dimensional virtual space;

space setting unit for setting the shapes of said player character and an object existing around the player character, and their arrangement in said virtual space;

image generating unit for generating an image in said virtual space as seen from a virtual visual point position;

timing decision unit for deciding the timing at which said player character and said object satisfy relatively a predetermined relation for at least one of the shape and the arrangement in said virtual space; and

visual point position setting unit for shifting said visual point position, along with the movement of said player character, so that said player character may be contained in a visual field range, and changing said visual point position slowly at first and increasingly faster with the elapse of the time in a predetermined range almost centered at said player character,

when said timing decision unit decides that said player character and said object satisfy the predetermined relation.

22. The game machine according to claim 21, wherein said timing decision unit decides the timing at which said player character is intercepted in the visual field by said object, as looked from said visual point position in a direction toward said player character, on the basis of the shapes of said player character and said object and their arrangement in said virtual space.

23. The game machine according to claim 21, wherein said timing decision unit decides the timing at which said object is contained in a predetermined range around said player character.

24. The game machine according to claim 23, wherein said visual point position is set above the height of said player character, and said timing decision unit decides the timing for said object above the height of said player character.

25. The game machine according to claim 21, wherein said visual point position setting unit changes said visual point position by rotating said visual point position by a predetermined angle around a rotational center of said player character position.

26. The game machine according to claim 25, wherein said image generating unit generates said image continuously while said visual point position is being rotated by said visual point position setting unit.

27. The game machine according to claim 25, wherein said visual point position setting unit continues an operation of rotating said visual point position, until said player character is kept from being intercepted by said object as looked from said visual point position.

28. The game machine according to claim 21, further comprising return instructing unit for making a return instruction of returning the changed visual point position to an original state, when said visual point position is changed, wherein said visual point position setting unit returns said changed visual point position to the original state, when the return instruction is made by said return instructing unit.

29. A game machine, comprising:

movement instructing unit for instructing the movement of a player character in a three-dimensional virtual space;

space setting unit for setting the shapes of said player character and an object existing around the player character, and their arrangement in said virtual space;

image generating unit for generating an image in said virtual space as seen from a virtual visual point position;

timing decision unit for deciding the timing at which said player character and said object satisfy relatively a predetermined relation for at least one of the shape and the arrangement in said virtual space;

visual point position setting unit for shifting said visual point position, along with the movement of said player character,

so that said player character may be contained in a visual field range; and

transmission processing unit for performing a transmission process of changing the degree of transparency for an object placed between said player character and said visual point position, slowly at first and increasingly faster with the elapse of the time, when said timing decision unit decides that said player character and said object satisfy the predetermined relation.

30. The game machine according to claim 29, wherein said timing decision unit decides the timing at which said player character is intercepted in the visual field by said object, as looked from said visual point position in a direction toward said player character, on the basis of the shapes of said player character and said object and their arrangement in said virtual space.

31. The game machine according to claim 29, wherein said timing decision unit decides the timing at which said object is contained in a predetermined range around said player character.

32. The game machine according to claim 31, wherein said visual point position is set above the height of said player character, and said timing decision unit decides the timing for said object above the height of said player character.

33. The game machine according to claim 29, further comprising return instructing unit for making a return instruction of returning the changed transparent degree to an original state,

when the transparent degree of said object is changed, wherein said visual point position setting unit returns said changed transparent degree to the original state, when the return instruction is made by said return instructing unit.

34. A game machine, comprising:

movement instructing unit for instructing the movement of a player character in a three-dimensional virtual space;

space setting unit for setting the shapes of said player character and an object existing around the player character, and their arrangement in said virtual space;

image generating unit for generating an image in said virtual space as seen from a virtual visual point position;

timing decision unit for deciding the timing at which said player character and said object satisfy relatively a predetermined relation for at least one of the shape and the arrangement in said virtual space;

visual point position setting unit for shifting said visual point position, along with the movement of said player character, so that said player character may be contained in a visual field range; and

composition processing unit for generating a predetermined mark image indicating the existing position of said player character and composing the mark image on the image generated by said image generating unit, when said timing decision unit decides that said player character and said object satisfy the predetermined relation.

35. The game machine according to claim 34, wherein said timing decision unit decides the timing at which said player character is intercepted in the visual field by said object, as looked from said visual point position in a direction toward said player character, on the basis of the shapes of said player character and said object and their arrangement in said virtual space.

36. The game machine according to claim 34, wherein said timing decision unit decides the timing at which said object is contained in a predetermined range around said player character.

37. The game machine according to claim 36, wherein said visual point position is set above the height of said player character, and said timing decision unit decides the timing for said object above the height of said player character.

38. A game machine, comprising:

movement instructing unit for instructing the movement of a player character in a three-dimensional virtual space;

space setting unit for setting the shapes of said player character and an object existing around the player character, and their arrangement in said virtual space;

image generating unit for generating an image in said virtual space as seen from a virtual visual point position;

timing decision unit for deciding the timing at which said player character and said object satisfy relatively a predetermined relation for at least one of the shape and the arrangement in said virtual space;

return instructing unit for making a return instruction of returning the changed visual point position to an original state, when said visual point position is changed; and

visual point position setting unit for shifting said visual point position, along with the movement of said player character, so that said player character may be contained in a visual field range, and changing said visual point position in a predetermined range almost centered at said player character, when said timing decision unit decides that said player character and said object satisfy the predetermined relation, as well as returning the changed visual point position to the original state, when a return instruction is issued by said return instructing unit.

39. The game machine according to claim 38, wherein said timing decision unit decides the timing at which said player character is intercepted in the visual field by said object, as looked from said visual point position in a direction toward said player character, on the basis of the shapes of said player character and said object and their arrangement in said virtual space.

40. The game machine according to claim 38, wherein said timing decision unit decides the timing at which said object is contained in a predetermined range around said player character.

41. The game machine according to claim 40, wherein said visual point position is set above the height of said player character, and said timing decision unit decides the timing for said object above the height of said player character.

42. The game machine according to claim 38, wherein said visual point position setting unit changes said visual point position by rotating said visual point position by a predetermined angle around a rotational center of said player character position.

43. The game machine according to claim 42, wherein said image generating unit generates said image continuously while said visual point position is being rotated by said visual point position setting unit.

44. The game machine according to claim 42, wherein said visual point position setting unit continues an operation of rotating said visual point position, until said player character is kept from being intercepted by said object as looked from said visual point position.

45. A game machine, comprising:

movement instructing unit for instructing the movement of a player character in a three-dimensional virtual space;

space setting unit for setting the shapes of said player character and an object existing around the player character, and their arrangement in said virtual space;

image generating unit for generating an image in said virtual space as seen from a virtual visual point position;

timing decision unit for deciding the timing at which said player character and said object satisfy relatively a predetermined relation for at least one of the shape and the arrangement in said virtual space;

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return instructing unit for making a return instruction of returning the changed degree of transparency for the object to an original state, when the degree of transparency for said object is changed;

visual point position setting unit for shifting said visual point position, along with the movement of said player character, so that said player character may be contained in a visual field range; and

transmission processing unit for performing a transmission process of changing the degree of transparency for the object placed between said player character and said visual point position, when said timing decision unit decides that said player character and said object satisfy the predetermined relation, as well as returning the changed degree of transparency to the original state, when a return instruction is issued by said return instructing unit.

46. The game machine according to claim 45, wherein said timing decision unit decides the timing at which said player character is intercepted in the visual field by said object, as looked from said visual point position in a direction toward said player character, on the basis of the shapes of said player character and said object and their arrangement in said virtual space.

47. The game machine according to claim 45, wherein said timing decision unit decides the timing at which said object is contained in a predetermined range around said player character.

48. The game machine according to claim 47, wherein said visual point position is set above the height of said player character, and said timing decision unit decides the timing for said object above the height of said player character.

49. An information storage medium storing a program for enabling a computer to execute a process of deciding a timing at which a player character and an object existing around the player character satisfy relatively a predetermined relation for at least one of the shape and the arrangement in a virtual space, and changing the visual point position in a predetermined range almost centered at said player character after the elapse of a fixed time.

50. An information storage medium storing a program for enabling the computer to execute a process of deciding the timing at which a player character and an object existing around the player character satisfy relatively a predetermined relation for at least one of the shape and the arrangement in a virtual space, and transmitting said object placed between said player character and the visual point position after the elapse of a fixed time.